

## **Distribution Patterns of Humpback Whitefish in the Upper Tanana River Drainage**

**Abstract:** Radio telemetry technology was employed to track the movements and locate important habitats such as feeding, spawning and overwintering areas used by adult humpback whitefish *Coregonus pidchii* in the upper Tanana River drainage. One hundred fifty-nine transmitters were surgically implanted in humpback whitefish from five sample groups during the spring and summer of 2000, 2001, and 2002. Their movements were monitored for several months using boat aerial tracking techniques. Relocations indicate that adults frequent lake habitats in the spring and early summer, and move from lake to river habitats by mid to late summer. By late fall, most tagged fish were concentrated in two discrete spawning areas; one in the Nabesna River, 15 to 30 km upstream from its mouth, and the other in the Chisana River, 90 to 2100 km upstream from its mouth. Most fish overwintered in flowing water habitats, the Tanana and Chisana rivers, while a smaller number overwintered in lakes. Juvenile rearing areas, which are important habitats for any fish population, have not been identified. Locating rearing habitats should be a priority for future studies.

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